

Fig. 1 DNA detection in various cacao and cocoa samples

1A, Native DNA detection in agarose gel using ethidium bromide

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1B, Hybridisation of total cacao DNA on membrane transfer of native DNA agarose gel

M: indicates molecular size marker (λ /HindIII and ϕ 174/HaeIII), A is a DNA control from coffee leave, B is a DNA control from hazelnut leave, C is a DNA control from cacao leave, D is DNA sample from fresh cacao seed embryo, E is a DNA sample obtain with fermented cacao beans, F is a DNA sample from roasted nib and G is a DNA sample from dark chocolate (Nestlé Noir).

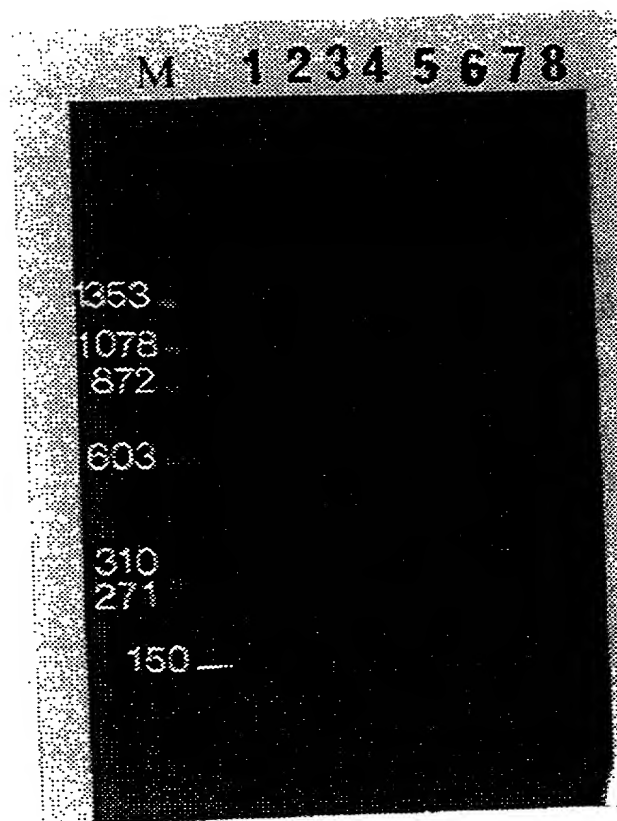


Fig. 2 PCR-DNA amplification of 5S intergenic spacer on different cacao samples
 M: indicates molecular size marker in base pairs (λ /HindIII and ϕ 174/HaeIII), 1: Cacao leaves, 2: Cacao fresh bean, 3: Cacao fermented bean, 4 & 5: Cocoa roasted nib, 6 & 7 dark chocolate (Nestlé Noir), 8: negative control

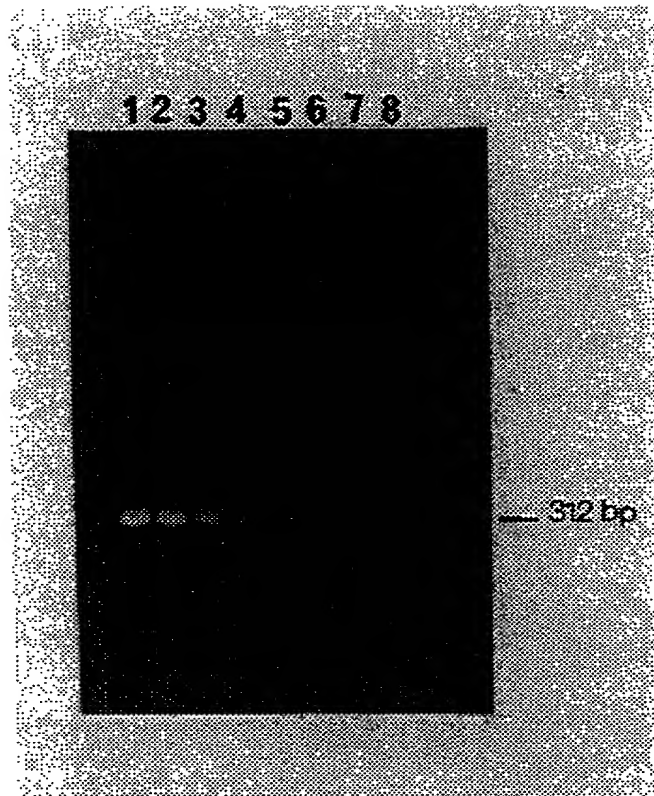


Fig. 3 **PCR-DNA amplification of intron 1 and exon 2 of Seed Storage Protein gene (SSP)**
 1: Cacao leaves, 2: Cacao fresh bean, 3: Cacao fermented bean, 4 & 5: Cocoa roasted nib, 6 & 7 dark chocolate (Nestlé Noir), 8: negative control

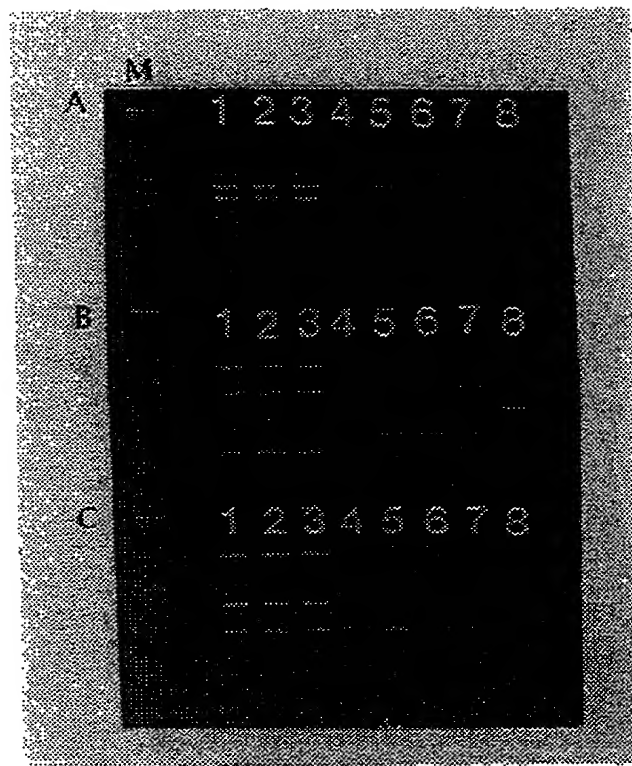


Fig. 4 RAPD profiles from various cacao and cocoa samples
 A: Z06 primer, B: AG 15 primer, C: AM10. M: indicates molecular size marker (λ /HindIII and ϕ 174/HaeIII), 1, 2 and 3 are cacao leaf samples, 4 and 5 are cocoa samples from "Nestlé Noir", 6 and 7 are cocoa from "Vendome" and 8 indicates the negative control